

§ 1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) it establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) it refutes, or is inconsistent with, a position the applicant takes in:
 - (i) opposing an argument of unpatentability relied on by the Office, or
 - (ii) asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) each inventor named in the application;
- (2) each attorney or agent who prepares or prosecutes the application; and
- (3) every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

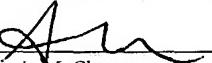
Applicant: Demetri Psaltis et al. Examiner: Not yet assigned
Serial No.: Not yet assigned Group Art Unit: Not yet assigned
Filed: July 25, 2003 Docket: G&C 176.4-US-U1
Title: HOLOGRAPHIC IMAGING SPECTROMETER

CERTIFICATE OF MAILING UNDER 37 CFR 1.10

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Date of Deposit: July 25, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 and is addressed to: Commissioner for Patents, Washington, D.C. 20231.

By: 
Name: Suzie McCleave

INFORMATION DISCLOSURE STATEMENT(37 C.F.R. §1.97(b))

MAIL STOP NEW PATENT APPLN.
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted along with the filing of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that

the reference(s) are not "prior art". Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

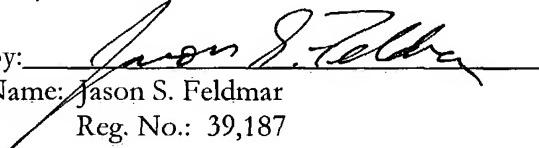
Please direct any response or inquiry to the below-signed attorney at (310) 641-8797.

Respectfully submitted,

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Date: July 25, 2003

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JSF/sjm

Form 1449*	Docket Number: G&C 176.4-US-U1	Application Number: Not yet assigned
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION	Applicants: Demetri Psaltis et al.	
	Filing Date: July 25, 2003	Group Art Unit: Not yet assigned

U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	3,013,467	12/19/61	Minsky			
FOREIGN PATENTS						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
		G. Barbastathis et al., "Shift-Multiplexed Holographic Memory Using The Two-Lambda Method," March 15, 1996, Optics Letters, 21(6):432-434				
		G. Barbastathis et al., "Confocal Microscopy With A Volume Holographic Filter," June 15, 1999, Optics Letters, 24(12):811-813				
		G. Barbastathis et al., "Multidimensional Tomographic Imaging Using Volume Holography," December 1999, Proceedings of the IEEE, 87(12):2098-2120				
		G. Barbastathis et al., "Shift Multiplexing With Spherical Reference Waves," May 10, 1996, App. Opt. 35(14):2403-2417				
		G.W. Burr et al., "Effect Of The Oxidation State Of LiNbO ₃ :Fe On The Diffraction Efficiency Of Multiple Holograms," June 15, 1996, Optics Letters, 21(12):893-895				
		W.H. Carter et al., "Correlation Theory of Wavefields Generated By Fluctuating, Three-Dimensional, Primary, Scalar Sources," 1981, Optica Acta, 28(2):227-244				
		J.-J.P. Drolet et al., "Compact, Integrated Dynamic Holographic Memory With Refreshed Holograms," April 15, 1997, Optics Letters, 22(8):552-554				
		D. Huang et al., "Optical Coherence Tomography," November 22, 1991, Science, New Series, 254(5035):1178-1181				
		K. Itoh et al., "Fourier Transform Spectral Imaging: Retrieval Of Source Information From Three-Dimensional Spatial Coherence," January 1986, J. Opt. Soc. Am.A/ 3(1):94-100				
		H. Lee, "Volume Holographic Interconnections With Maximal Capacity And Minimal Cross Talk," March 15, 1989, J. Appl. Phys. 65(6):2191-2194				
		W. Liu et al., "Pixel Size Limit In Holographic Memories," October 1, 1999, Optics Letters, 24(19):1340-1342				
		Daniel L. Marks et al., "Visible Cone-Beam Tomography With A Lensless Interferometric Camera," June 25, 1999, Science, 284:2164-2166				
		U. Morgner et al., "Spectroscopic Optical Coherence Tomography," January 15, 2000, Optics Letters, 25(2):111-113				
		Demetri Psaltis et al., "Nonvolatile Storage In Photorefractive Crystals," February 1, 1994, Optics Letters, 29(3):210-212				
		J. Rosen et al., "General Theorem of Spatial Coherence: Application To Three-Dimensional Imaging," October 1996, J. Opt. Soc. Am. A, 13(10):2091-2095				
		G.G. Yang et al., "Volume Reflection Holographic Confocal Imaging," August 10, 2000, Appl. Opt., 39(23):4076-4079				
		H. Zhou et al., "Angle-Dependent Diffraction Efficiency In A Thick Photorefractive Hologram," March 10, 1995, Applied Optics, 34(8):1303-1309				

EXAMINER: _____ **DATE CONSIDERED:** _____
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.